

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A producing method of for producing an optical film, said optical film being produced by expanding a polymer film with a tentering device, said producing method comprising steps of:

unwinding a first polymer film from a first film roll to supply said first polymer film to said tentering device;

detecting a first trailing end portion of said first polymer film;

feeding said first polymer film for a predetermined time until said first trailing end portion of said first polymer film is at a first position whereby a trailing end treatment is performed to produce a second trailing end portion;

transporting a predetermined length of said first polymer film to a film connecting position;

unwinding a second polymer film from a second film roll after the unwinding of said first polymer film is completed;

detecting a first leading end portion of said second polymer film;

feeding said second polymer film for a predetermined time until said first leading end portion of said second polymer film is at said first position whereby a leading end treatment is performed to produce a second leading end portion;

transporting a predetermined length of said second polymer film to said film connecting position;

overlaying a predetermined length of a said second trailing end portion of said first polymer film and a said second leading end portion of said second polymer film at a said film connecting position;

thermally melting and adhering part or entirety of said overlaid second trailing and second leading end portions in line; and

unwinding said second polymer film from said second film roll after the thermal melt-adhesion to supply said second polymer film into said tentering device,

wherein the first and second polymer films are thermally melted and adhered together without stopping the tentering device.

2. (currently amended) ~~A producing The method for producing an optical film as~~ claimed in claim 1, further comprising steps of:

forming a loop of said first polymer film in a reservoir disposed between said film connecting position and said tentering device;

stopping said second trailing end portion of said first polymer film when said second trailing end portion of said first polymer film reaches the film connecting position; and

stopping said second leading end portion of said second polymer film for the thermal melt-adhesion when said second leading end portion of said second polymer film overlies on said second trailing end portion of said first polymer film.

3. (currently amended) ~~A producing The method for producing an optical film as~~ claimed in claim 2, further comprising cutting off an old said first trailing end portion to form said second trailing end portion, and/or cutting off an old said first leading end portion to form said second leading end portion, with a cutter disposed upstream from the film connecting position at the first position.

4. (currently amended) ~~A producing The method for producing an optical film as~~ claimed in claim 3, wherein a line width of a thermal melt-adhesion line is in a range of 1-10 mm.

5. (currently amended) ~~A producing The method for producing an optical film as~~ claimed in claim 4, wherein a distance from said thermal melt-adhesion line to an end point of said second trailing end portion of said first polymer film or an end point of said second leading end portion of said second polymer film is at most 10 mm.

6. (currently amended) A producing The method for producing an optical film as claimed in claim 5, wherein said distance is 0 mm.

7. (currently amended) A producing The method for producing an optical film as claimed in claim 6, wherein a length of said ~~old first~~ trailing end portion which is cut off is nearly twice as large as that of a circumference of a roll core of said first film roll.

8. (currently amended) A producing The method for producing an optical film as claimed in claim 7, wherein a length of said ~~old first trailing leading~~ end portion which is cut off is nearly equal to that of a circumference of said second film roll.

9. (currently amended) A producing The method for producing an optical film as claimed in claim 1, wherein said thermal melt-adhesion is performed with a heat seal or an impulse seal.

10. (currently amended) A producing The method for producing an optical film as claimed in claim 3, wherein said first and second polymer films are a PVA film.

11. (currently amended) A producing The method for producing an optical film as claimed in claim 10, wherein said tentering device expands said first and second polymer films in a direction inclined relative to a film transporting direction.

12. (currently amended) A producing The method for producing an optical film as claimed in claim 11, wherein said first and second polymer films are treated with a treatment liquid shortly before entrance into said tentering device.